

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006688**Date Inspected:** 13-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Luan Zhuo Gang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** trial assembly**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG superstructure trial assembly east line

This QA observed ZPMC qualified welding personnel identified as 220069 perform FCAW welding on weld joint identified as OBE2A-002, 003 and 004. ZPMC QC identified as Mr. Chen Bo was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2231T.

This QA observed ZPMC qualified welding personnel identified as 202841 and 048801 perform FCAW welding on weld joint identified as OBE2A-001. ZPMC QC identified as Mr. Chen Bo was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233T.

This Quality Assurance Inspector (QA) observed ZPMC welding personnel stop and restart Flux Cored Arc Weld (FCAW) pass without cleaning the "crater area" of the weld prior to resuming the welding process. This is in violation of AWS D1.5 2002 section 3.11.1 "Before welding over previously deposited metal, all slag shall be removed and adjacent base metal shall be brushed clean. This requirement shall apply not only to successive layers but also to successive beads and to the crater area when welding is resumed after any interruption." This incident was observed on OBG superstructure trial assembly on weld joint identified as OBE2A-003 (2AE to 2BE bottom

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panel splice). A digital video clip of this incident can be viewed on the Caltrans server under [Team OBG // 2AE to 2BE weld video // OBG 2AE to 2BE bottom panel splice]. This QA informed the contractors QC identified as Mr. Wang Lu and ABF representative identified as Mr. Peter Ferguson that an incident report would be generated for this issue.

OBG superstructure trial assembly west line

This QA observed ZPMC qualified welding personnel identified as 220066 and 220067 perform FCAW welding on weld joint identified as OBW2A-015. ZPMC QC identified as Mr. Chen Bo was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

This QA observed that ZPMC personnel are sandblasting the splice joint between 4AW and 4BW in preparation for paint.

This QA observed ZPMC personnel removing the suspension brackets from the west line.

This QA observed ZPMC personnel snugging bolts on floorbeam diagonal brace on OBG segment 3BW at PP023.

OBG crossbeam CB2

This QA observed ZPMC personnel perform various tasks relative to the assembly of this crossbeam to the east and west lines including drilling bolt holes in the splice plates, touch up paint inside of the newly drilled holes and aligning the south end of the crossbeam to the east line.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

As mentioned above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

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Inspected By:	Hall,Steven	Quality Assurance Inspector
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Reviewed By:	Prue,Erik	QA Reviewer
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